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REMARKS

The application has been amended. Claim 1 has been amended to overcome the rejections raised by the Examiner. Reconsideration of the application is respectfully requested.

Independent claim 1 stands rejected under 35 U.S.C. §112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, Applicant has amended claim 1 to delete the term "conventional". Reconsideration is respectfully requested.

Section 102 Rejections

Independent claims 1-6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,565,649 to Tougeron. (hereinafter "Tougeron"). This determination is respectfully traversed.

Tougeron discloses a projectile intended to carry a payload, and create a particular effect upon impact by the release of an irritating fluid in the vicinity of the point of impact, through the deformation or separation of the projectile upon impact.

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In contrast, the present invention as recited in claims 1-6 is directed to an extended range munition having a projectile which includes a generally cylindrical body. The cylindrical body has a protruding member extending therefrom thereby increasing the weight of the body at the forward end.

In comparing the Tougeron disclosure with the claims of the present invention, it is clear that Tougeron fails to disclose a projectile having forward end with increased weight. Nowhere in Tougeron is the relative weight of the forward and rearward end compared. In fact, Tougeron discloses a cavity 6 between the nose and the base. Clearly the presence of the cavity would not bias the weight of the projectile to the forward end. In addition the present invention discloses a hollow base for the improvement of flight characteristics. Tougeron specifically discloses a hollow base for the inclusion of a motor or propellant device, describing how the propelling motor always remains connected to the projectile and can be fired from a launcher of simple design. In addition, Tougeron discloses that the payload is dispersed by the deformation or separation of the projectile body, while the present invention relies strictly on the kinetic impact as the means to achieve the desired result..

In addition, Tougeron fails to show a projectile having a protruding solid forward end. The forward end of the Tougeron projectile is hollow and accommodates a liquid filling therein.

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Accordingly, claims 1-6 include specifically recited elements which are not found in the disclosure in Tougeron. As such, as a matter of law, Tougeron cannot anticipate claims 1-6 of the present invention.

It is, therefore, respectfully submitted that claims 1-6, as well as the claims which depend therefrom, define patentably over Tougeron.

Claims 1-8 and 10-12 also stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,361,701 to Stevens. (hereinafter "Stevens"). This determination is respectfully traversed.

Stevens discloses a pyrotechnic tracer payload carried within a lead slug, wherein the projectile is disclosed as sub-caliber, and wherein the projectile is held centrally in the bore by a sabot.

In contrast, the present invention as recited in claims 1-6 is directed to an extended range munition having a projectile which includes a generally cylindrical body. The cylindrical body has a protruding member extending therefrom thereby increasing the weight of the body at the forward end.

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In comparing the Stevens disclosure with the claims of the present invention, it is clear that Stevens fails to disclose a projectile having forward end with increased weight. Nowhere in Stevens is the relative weight of the forward and rearward end compared. In fact, Stevens discloses a central cavity 42 in which the tracer charge is placed. Clearly the presence of the cavity would not bias the weight of the projectile to the forward end. In addition nowhere in Stevens is there found any disclosure of a projectile with less lethal properties.

In addition, Stevens fails to show a projectile having a protruding solid forward end. The forward end of the Stevens projectile is hollow and accommodates a tracer charge.

Accordingly, claims 1-8 and 10-12 include specifically recited elements which are not found in the disclosure in Stevens. As such, as a matter of law, Stevens cannot anticipate claims 1-8 and 10-12 of the present invention.

It is, therefore, respectfully submitted that claims 1-8 and 10-12, as well as the claims which depend therefrom, define patentably over Stevens

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Claims 1-8 and 10-12 also stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,067,909 to Knoster, Jr.. (hereinafter "Knoster"). This determination is respectfully traversed.

Knoster discloses a component of a shotshell which carries a projectile, not a projectile itself. Knoster, discloses a device for centrally locating a projectile within the bore axis as a single component, combining what are typically separate components into a single component.

In contrast, the present invention as recited in claims 1-6 is directed to an extended range munition having a projectile which includes a generally cylindrical body. The cylindrical body has a protruding member extending therefrom thereby increasing the weight of the body at the forward end.

In comparing the Knoster disclosure with the claims of the present invention, it is clear that Knoster fails to disclose a projectile having a protruding member extending therefrom which is dome shaped. Nowhere in Knoster is the shape of the projectile disclosed as being dome shaped. In fact, in each of the Figs. 1-10 of Knoster, the projectile 16 is shown as having a flat surface. without any curvature to the forward end of cover 36.

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Accordingly, claims 1-8 and 10-12 include specifically recited elements which are not found in the disclosure in Knoster. As such, as a matter of law, Knoster cannot anticipate claims 1-8 and 10-12 of the present invention.

It is, therefore, respectfully submitted that claims 1-8 and 10-12, as well as the claims which depend therefrom, define patentably over Knoster.

Section 103 Rejections

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Tougeron in view of U.S. Patent No. 6,615,739 to Gibson. This determination is respectfully traversed.

As noted above, Tougeron is deficient in that it fails to disclose a projectile having a forward end with increased weight. Moreover, Tougeron fails to show a protruding solid head. The Gibson reference fails to fill these deficiencies.

Gibson rather than showing a projectile having a forward end with increased weight and a protruding solid head, discloses a projectile with a cavity 7 contained within a hemispherical portion 3. Gibson therefore specifically does not disclose a forward end with increased weight

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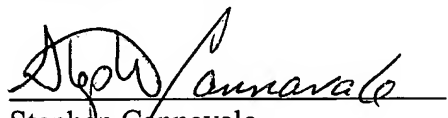
or a protruding solid head. Accordingly, at the very point at which Tougeron is deficient, Gibson fails to fill the deficiencies of Tougeron.

Accordingly, the combination of Tougeron and Gibson fails to disclose, teach or suggest the invention set forth in the claims of the present invention.

Having responded in full to the present Office Action, it is respectfully submitted that the application, including claims 1-12, is in condition for allowance. Favorable action thereon is respectfully solicited.

Should the Examiner have any questions or comments concerning the above, the Examiner is respectfully invited to contact the undersigned attorney at the telephone number given below.

Respectfully submitted,


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